HOW TO GET THE PROPER BRAKE SHOES & LINING WITHOUT A LINE SETTING TICKET
1- Measure the inside diameter of the drum: Example 16 ½”

2– Measure the width of the shoe: Example 7”
3 – Identify whether it is a “Q – Style” shoe or “Eaton Style” shoe:

Q-Style shoe

Eaton Style shoe (NOTE THE WIDE ANCHOR ENDS)
4- Identify if it is Q style versus Q Plus shoe or Eaton versus Eaton Extended Service.

- **4707 Q Plus style**
- **4515 Q style**

- **4709 Eaton Extended style**
- **4311 Eaton style**

5- Once you have identified the drum size, shoe size and shoe style, you will need to find out what type of lining application that is required.

**FRICTION SELECTION FACTORS**

- **CALCULATE THE NUMBER OF AXLES** (tractor & trailer) not including the steer axle on the tractor.
- **DETERMINE THE TOTAL ACTUAL WEIGHT** example *(95,000 LBS)*
- **DIVIDE NUMBER OF AXLES BY TOTAL ACTUAL WEIGHT**

**IE:** TRACTOR 2 AXLES + TRAILER 2 AXLES = (4 AXLES)
95,000 LBS DIVIDE 4 AXLES = 23,750 LBS ACTUAL LOAD

**IE:** TRACTOR 2 AXLES + TRAILER 3 AXLES = (5 AXLES)
95,000 LBS DIVIDE 5 AXLES = 19,000 LBS ACTUAL LOAD
• **Area x Length = AL Factor**
  - **Area** = Square inches in Spring Brake (i.e. 30 sq in for a 30/30 spring brake)
  - **Length** = Length of Slack Adjuster
    - Two lengths commonly used
      - 5 ½ inches (results in an AL165)
      - 6 inches (results in an AL180)

**Simple Rule, All Trucks & Tractors Use a 5 ½ In Slack**
Most Trailers Use 6 In Slack with Exception of Some New Trailers Who Are Now Using 5 ½ In Slack.

6- Once you have determined the Actual Load Per Axle and the A/L Factor, you simply need to use the Gorilla Brake Lining Application guide to determine which lining to use on your specific application.

See guide below:
GORILLA BRAKE LINING APPLICATION GUIDE

Information needed to determine the A/L Factor:
* Size of brake chamber
* Length of slack adjuster

Chamber size \times \text{slack length} = \text{A/L Factor}

* Applications based on a 16.5x7" S cam brake

<table>
<thead>
<tr>
<th>Axle Load (lbs.)</th>
<th>195 A/L</th>
<th>180 A/L</th>
<th>165 A/L</th>
<th>144 A/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>14,000</td>
<td>-</td>
<td>-</td>
<td>GB20STD</td>
<td>GB20STD</td>
</tr>
<tr>
<td>15,000</td>
<td>-</td>
<td>-</td>
<td>GB20PRM</td>
<td>GB20PRM</td>
</tr>
<tr>
<td>16,000</td>
<td>-</td>
<td>GB20STD</td>
<td>GB20PRM</td>
<td>GB20PRM</td>
</tr>
<tr>
<td>17,000</td>
<td>-</td>
<td>GB20PRM</td>
<td>GB20PRM</td>
<td>GB20PRM</td>
</tr>
<tr>
<td>18,000</td>
<td>GB20STD</td>
<td>GB20PRM</td>
<td>GB20PRM</td>
<td>GB20PRM</td>
</tr>
<tr>
<td>19,000</td>
<td>GB20PRM</td>
<td>GB20STD</td>
<td>GB20PRM</td>
<td>GB20PRM</td>
</tr>
<tr>
<td>20,000</td>
<td>GB20PRM</td>
<td>GB20PRM</td>
<td>GB20PRM</td>
<td>GB20PRM</td>
</tr>
<tr>
<td>21,000</td>
<td>GB20PRM</td>
<td>GB20STD</td>
<td>GB20PRM</td>
<td>GB23HD</td>
</tr>
<tr>
<td>22,000</td>
<td>GB20PRM</td>
<td>GB23PRM</td>
<td>GB23PRM</td>
<td>GB23HD</td>
</tr>
<tr>
<td>23,000</td>
<td>GB23PRM</td>
<td>GB23PRM</td>
<td>GB23PRM</td>
<td>GB23HD</td>
</tr>
<tr>
<td>24,000</td>
<td>GB23PRM</td>
<td>GB23HD</td>
<td>GB23HD</td>
<td>GB23HDC</td>
</tr>
<tr>
<td>25,000</td>
<td>GB23HDC</td>
<td>GB23HDC</td>
<td>GB23HDC</td>
<td>GB23HDC</td>
</tr>
</tbody>
</table>